

**MUNICIPAL  
WASTEWATER LAND APPLICATION PERMIT  
LA-000020-03**

**U.S. Forest Service – Samowen Campground**

U.S. Forest Service, Northern Region, 3815 Schreiber, Coeur d'Alene, ID 83815, IS HEREBY AUTHORIZED TO CONSTRUCT, INSTALL AND OPERATE A WASTEWATER-LAND APPLICATION TREATMENT SYSTEM IN ACCORDANCE WITH THE WASTEWATER-LAND APPLICATION RULES (IDAPA 58.01.17), THE WATER QUALITY STANDARDS AND WASTEWATER TREATMENT REQUIREMENTS (IDAPA 58.01.02), AND THE GROUND WATER QUALITY RULE (IDAPA 58.01.11) AND ACCOMPANYING PERMIT APPENDICES AND REFERENCE DOCUMENTS. THIS PERMIT IS EFFECTIVE FROM THE DATE OF SIGNATURE AND EXPIRES ON February 11, 2009.

Gwen P. Fransen

Gwen P. Fransen  
Coeur d'Alene Regional Office Administrator  
Idaho Department of Environmental Quality

Signed this 11<sup>th</sup> day of February, 2004

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

2110 Ironwood Parkway  
Coeur d'Alene, Idaho 83814  
(208) 769-1422  
(208) 769-1404 fax

**POSTING ON SITE RECOMMENDED**

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The Sections, Appendices, and Reference Documents listed on this page are all elements of Wastewater-Land Application Permit and are enforceable as such. This permit does not relieve the permittee from responsibility for compliance with other applicable federal, state or local laws, rules, standards or ordinances.

## C. Facility Information

<b>Legal Name of Permittee</b>	Samowen Campground , USFS
<b>Type of Waste</b>	Municipal wastewater
<b>Method of Treatment</b>	Slow Rate
<b>Type of Facility</b>	Municipal
<b>Site Acres</b>	6 acres
<b>Facility Location</b>	Hope, Idaho
<b>Legal Location</b>	T58N, R02E, Section 11 & 12
<b>County</b>	Bonner
<b>USGS Quad</b>	Hope, ID
<b>Soils on Site</b>	Sandy silt loam
<b>Depth to Ground Water</b>	>7 feet to ground water at land application site
<b>Beneficial Uses of Ground Water</b>	Drinking water
<b>Nearest affected Surface Water</b>	Lake Pend Oreille
<b>Beneficial Uses of Surface Water</b>	Drinking water, recreation, aquatic life
<b>Facility Contact Person Mailing Address Phone/Fax Number</b>	James Gebhardt, Assistant Forest Engineer US Forest Service – Region One Idaho Panhandle National Forest 3815 Schrieber Way Coeur d’Alene, ID 83815 Phone: 208-765-7385 Fax: 208-765-7307 <a href="mailto:Jgebhardt@fs.fed.us">Jgebhardt@fs.fed.us</a>

## D. Site Map(s)

### Samowen Campground Application Area Location

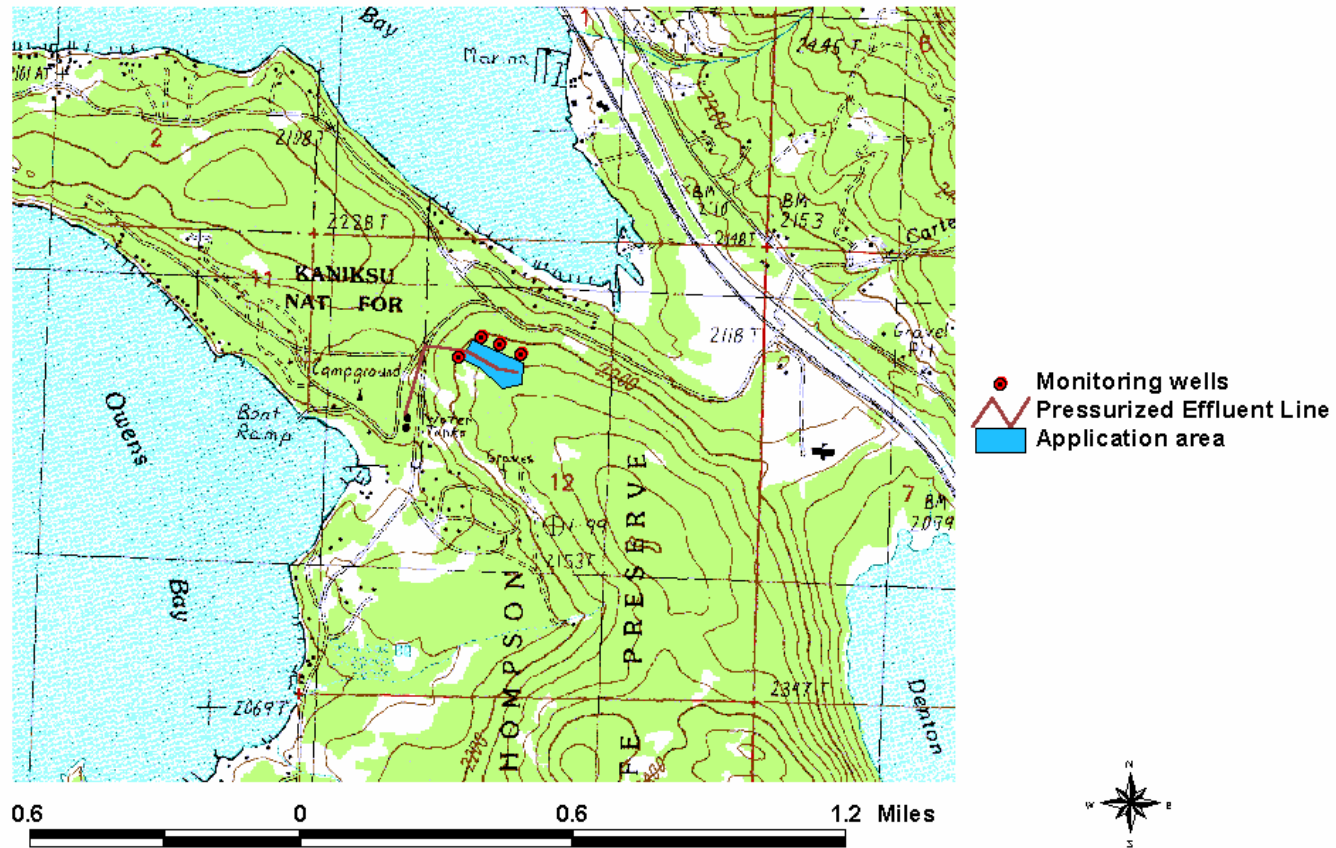


Figure 1. SOC Treatment Facility Site Topographic Map

**E. Environmental Monitoring Serial Numbers**  
**Computerized Data Reporting Serial Number Key**

HYDRAULIC MANAGEMENT UNITS		
Description	Acres	Serial No.
Application Site	6	MU-002002

WASTEWATER SAMPLING POINTS	
Description	Serial No.
Grab sample of effluent at irrigation site	WW-002001
Grab sample of influent at treatment plant	WW-002002

SOIL MONITORING UNITS		
Description	Associated Hydraulic Unit	Serial No.
Field 1	MU-002002	SU-002001
Field 2	MU-002002	SU-002002

GROUND WATER MONITORING		
Description	Location	Serial No.
Monitoring Well # 1	58N 02E 12bdd01	GW-002001
Monitoring Well # 2	58N 02E 12acc01	GW-002002
Monitoring Well # 3	58N 02E 12acc02	GW-002003
Monitoring Well # 4	58N 02E 12acc03	GW-002004

## **F. Reference Documents Incorporated or to be Incorporated into the Permit**

1. Operation and Maintenance Manual (Plan of Operation)
2. Silvicultural Plan

## G. Compliance Schedule for Required Activities

The Activities in the following table shall be completed on or before the Completion Date unless modified by the DEQ in writing.

Compliance Activity Number <b>Completion Date</b>	Compliance Activity Description
CA-020-01  12 months after permit issuance	The Plan of Operation (Operation and Maintenance Manual) shall be updated to incorporate the requirements of this permit and submitted to DEQ for review and approval. The plan shall document current treatment system information and operating procedures required to meet permit limits and conditions, monitoring requirements, and reporting requirements.
CA-020-02  12 months after permit issuance	A silvicultural plan must be completed and submitted to DEQ for approval. Included within this plan will be the care and harvest of the 6-acre land application site.

## **H. Special Conditions**

The following Special Conditions are additions and / or modifications to the Standard Conditions and Limits in this permit. The individual Special Conditions will state which Standard Condition or Limit is to be modified, and what that modification is. Additions will simply state what the addition is.

1. If the nitrogen loading for the reporting year is 75% or less than the nitrogen permit limit, the permittee may reduce wastewater monitoring frequency for TKN, NO<sub>2</sub>+NO<sub>3</sub>-N, and TP to once per year in September for each reporting year.
2. If the Ellisport Sewer District's wastewater collection system is extended to provide sewer service to property on the Hope Peninsula in the vicinity of Samowen Campground, the permittee shall modify Standard Condition #1 in Section I (page 9) to terminate land application of wastewater under this permit by connection to the Ellisport Sewer District facilities.



## I. Standard Permit Limits and Conditions

- 1) The Permittee is allowed to apply wastewater and treat it on a land application site as prescribed in the tables below and in accordance with all other applicable permit conditions and schedules.
- 2) See also Special Conditions.

Category		Permitted Limits and Conditions					
Type of Wastewater		Municipal Wastewater					
Application Site Area		6 acres, see Section D, Figure 1					
Application Season		Growing Season only, May 1 - September 30					
Maximum Hydraulic Loading Rate, Growing Season (includes wastewater and supplemental irrigation water, if used)	Month	Application Inches (IWR)	Maximum Application in Million Gallons (6 acres)	Precipitation (in)			
	May	1.88	0.31	2.31			
	June	4.88	0.79	2.25			
	July	9.02	1.47	1.01			
	August	6.62	1.08	1.21			
	September	3.56	0.58	1.72			
	Total	25.95	4.23	8.50			
	The application rates specified are typical irrigation water requirements for forested sites in northern Idaho. Contact DEQ if a different crop is anticipated. Application shall generally be at or below the rates specified above throughout the growing season. No ponding or runoff of wastewater from the approved land application site is allowed.						
Down gradient ground water	Ground Water Quality shall be in compliance with <i>Idaho Ground Water Quality Rule</i> IDAPA 58.01.11						
Maximum Nitrogen Application Rate – from all sources	125% of crop uptake, or UI Fertility Guide						
Maximum Phosphorus Application Rate – from all sources	125% of crop uptake, or UI Fertility Guide						
Grazing	Grazing is not allowed.						
Allowable crops	Crops grown for direct human consumption are not allowed (crops not processed prior to consumption).						
Signing	Signs shall be posted every 500 feet designating the fields as wastewater reuse areas or equivalent						
Buffer Zone Distances (based on sprinkler irrigation)	Disinfection Level* (total coliform)	Distance to Public Access	Distances to Inhabited Dwellings	Distance to streams	Distance to private water sources	Distance to public water sources	Single sample maximum total coliform level
	230/100 ml	300 feet	1000 feet	100 feet	500	1000	2400/100ml

## **I. Standard Permit Limits and Conditions**

\*Compliance determination method for disinfection requirements is as follows:

- For determining compliance with the 230/100 ml disinfection level, the median value of the last three (3) results must not exceed 230/100 ml. In addition, no single sample value shall exceed 2400/100 ml.

## J. Standard Monitoring Requirements

- 1) Appropriate analytical methods, as given in the *Handbook for Land Application of Municipal and Industrial Wastewater, April 1996*, or as approved by the Idaho Department of Environmental Quality (hereinafter referred to as DEQ), shall be employed. A description of approved sample collection methods, appropriate analytical methods and companion QA/QC protocol shall be included in the Operation and Maintenance Manual.
- 2) The permittee shall monitor and measure parameters as stated in the Facility Monitoring Schedule in this section. Samples shall be collected at times and locations that represent typical environmental and process parameters being monitored.
- 3) Monitoring locations are described in Section E. Environmental Monitoring Serial Numbers.
- 4) Monitoring is required at the frequency shown in the table below if wastewater is applied anytime during the time period shown.
- 5) If the soil management unit is less than 15 acres, use 5 sub-samples. If the soil management unit is greater than 15 acres, use 10 sub-samples.
- 6) The soil sample locations shall be selected for each management unit. Three (3) soil samples shall be collected at each sample location, one at 0-12 inches, one at 12-24 inches, and one at 24-36 inches. The soil samples collected at 0-12 inches from each sample location shall be composited. Similarly, all soil samples collected at 12-24 inches shall be composited and all soil samples collected at 24-36 inches shall be composited. This method will yield three samples for analysis, one for 0-12 inches, one for 12-24 inches and one for 24-36 inches for each soil management unit.
- 7) Ground water monitoring wells shall be purged a minimum of three (3) casing volumes prior to obtaining a sample of ground water. The static water level shall be measured prior to pumping or sampling the ground water.

### Facility Monitoring Schedule

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Weekly (when land applying)	Discharge Point of Wastewater to Land Application	grab sample	Chlorine residual (free chlorine)
Weekly (when land applying)	Discharge Point of Wastewater to Land Application	grab sample	Total Coliform
Monthly (when land applying)	Discharge Point of Wastewater to Land Application	Volume of Wastewater land applied	Gallons/Month and acre-inches/month applied to each Hydraulic Management Unit
Monthly (when land applying)	Influent to Wastewater Treatment System	grab sample	Total Kjeldahl nitrogen, nitrate+nitrite-nitrogen, total phosphorus
Monthly (when land applying)	Discharge Point of Wastewater to Land Application	grab sample	Total Kjeldahl nitrogen, nitrate+nitrite-nitrogen, total phosphorus
Twice per year (when land applying)	Monitoring Wells	Static Water Level and grab sample	Depth to ground water BGS (below ground surface), nitrate-nitrogen, total dissolved solids, chloride, and pH

## J. Standard Monitoring Requirements

Frequency	Monitoring Point	Description and Type of Monitoring	Parameters
Annually	Hydraulic management unit	Acres used for land application for the growing season	Acres
Annually	Hydraulic management unit	Total nitrogen and phosphorus from wastewater application	Nitrogen and phosphorus applied in lbs./acre/year
Annually	Hydraulic management unit	Crop nutrient uptake from standard tables for crop type and yield.	Nitrogen and phosphorus uptake in lbs/acre/year
Every five years	Soil Monitoring unit	Composite soil sample	E. C., nitrate-N, plant-available ammonia-N, P-available, pH

## **K. Reporting Requirements**

The permittee shall submit an Annual Wastewater-Land Application Site Performance Report ("Annual Report") prepared by a competent environmental professional no later than January 31 of each year which shall cover the previous year from January 1 through December 31. The Annual Report shall include results for monitoring required in Section E, status of compliance activities, and an interpretive discussion of monitoring data (ground water, vadose zone, hydraulic loading, wastewater etc.) with particular respect to environmental impacts by the facility.

Note: If the permittee monitors any parameter more frequently than required by this permit, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the annual report.

## **L. Standard Permit Conditions: Procedures and Reporting**

1. The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, operational controls and monitoring, which are installed or used by the permittee to comply with all conditions of the permit or the Wastewater-Land Application Permit Regulations, in conformance with a DEQ approved, current Plan of Operations (Operations and Maintenance Manual) which describes in detail the operation, maintenance, and management of the wastewater treatment system. This Plan of Operations shall be updated as necessary to reflect current operations.
2. Wastewater(s) or recharge waters applied to the land surface must be restricted to the premises of the application site unless permission has been obtained from the DEQ authorizing a discharge into the waters of the State as stated in IDAPA 58.01.02.600.02.
3. Wastewater must not create a public health hazard or nuisance condition as stated in IDAPA 58.01.02.600.03. In order to prevent public health hazards and nuisance conditions the permittee shall:
  - a. Apply wastewater as evenly as practicable to the treatment area;
  - b. Prevent organic solids (contained in the wastewater) from accumulating on the ground surface to the point where the solids putrefy or support vectors or insects; and
  - c. Prevent wastewater from ponding in the fields to the point where the ponded wastewater putrefies or supports vectors or insects.
4. The permittee shall:
  - a. Manage the wastewater land application treatment site as an agronomic operation where vegetative cover is grown and harvested or grazed to utilize the nutrients and minerals in the wastewater, and,
  - b. Not hydraulically overload any particular areas of the wastewater land application treatment site.
5. All waste solids, including dredgings and sludges, shall be utilized or disposed in a manner which will prevent their entry, or the entry of contaminated drainage or leachate therefrom, into the waters of the state such that health hazards and nuisance conditions are not created; and to prevent impacts on designated beneficial uses of the ground water and surface water. The permittee's management of waste solids shall be governed by the terms of the DEQ approved Waste Solids Management Plan, which upon approval shall be an enforceable portion of this permit.
6. If the permittee intends to continue operation of the permitted facility after the expiration of an existing permit, the permittee shall apply for a new permit at least six months prior to the expiration date of the existing permit in accordance with the Waste Water Land Application Permit Regulations and include seepage tests on all lagoons per latest DEQ procedures.
7. The permittee shall allow the Director of the Idaho Department of Environmental Quality or the Director's designee (hereinafter referred to as Director), consistent with Title 39, Chapter 1, Idaho Code, to:
  - a. Enter the permitted facility,
  - b. Inspect any records that must be kept under the conditions of the permit.
  - c. Inspect any facility, equipment, practice, or operation permitted or required by the permit.
  - d. Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility.
8. The permittee shall report to the Director under the circumstances and in the manner specified in this section:
  - a. In writing thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any significant change in information that was submitted during the permit application process.
  - b. In writing thirty (30) days before any anticipated change which would result in non-compliance with any permit condition or these regulations.

- c. Orally within twenty-four (24) hours from the time the permittee became aware of any non-compliance which may endanger the public health or the environment at telephone numbers provided in the permit by the Director (see below)

DEQ Regional Office: see Permit Certification Page  
Emergency 24 Hour Number 1-800-632-8000

- d. In writing as soon as possible but within five (5) days of the date the permittee knows or should know of any on-compliance unless extended by the DEQ. This report shall contain:
- i. A description of the non-compliance and its cause;
  - ii. The period of non-compliance including to the extent possible, times and dates and, if the non-compliance has not been corrected, the anticipated time it is expected to continue; and
  - iii. Steps taken or planned to reduce or eliminate reoccurrence of the non-compliance.
- e. In writing as soon as possible after the permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Director. Those facts or the correct information shall be included as a part of this report.
9. The permittee shall take all necessary actions to prevent or eliminate any adverse impact on the public health or the environment resulting from permit noncompliance.
10. The permittee shall determine (on an on-going basis) if any noxious weed problems relate to the permitted sites. If problems are present, coordinate with the Idaho Department of Agriculture or the local County authority regarding their requirements for noxious weed control. Also address these control operations in an update to the Operations and Maintenance Manual.

## **M. Standard Permit Conditions: Modifications, Violation, and Revocation**

1. The permittee shall furnish to the Director within reasonable time, any information including copies of records, which may be requested by the Director to determine whether cause exists for modifying, revoking, re-issuing, or terminating the permit, or to determine compliance with the permit or these regulations.
2. Both minor and major modifications may be made to this permit as stated in IDAPA 58.01.17.700.01 and 02 with respect to any conditions stated in this permit upon review and approval of the DEQ.
3. Whenever a facility expansion, production increase or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, or if it is determined by the DEQ that the terms or conditions of the permit must be modified in order to adequately protect the public health or environment, a request for either major or minor modifications must be submitted together with the reports as described in G. Reporting Requirements, and plans and specifications for the proposed changes. No such facility expansion, production increase or process modification shall be made until plans have been reviewed and approved by the DEQ and a new permit or permit modification has been issued.
4. Permits shall be transferable to a new owner or operator provided that the permittee notifies the Director by requesting a minor modification of the permit before the date of transfer.
5. Any person violating any provision of the Waste Water Land Application Permit Regulations, or any permit or order issued thereunder shall be liable for a civil penalty not to exceed ten thousand dollars (\$10,000) or one thousand dollars (\$1,000) for each day of a continuing violation, whichever is greater. In addition, pursuant to Title 39, Chapter 1, Idaho Code, any willful or negligent violation may constitute a misdemeanor.
6. The Director may revoke a permit if the permittee violates any permit condition or the Wastewater Land Application Permit Regulations.
7. Except in cases of emergency, the Director shall issue a written notice of intent to revoke to the permittee prior to final revocation. Revocation shall become final within twenty (20) days of receipt of the notice by the permittee, unless within that time the permittee request an administrative hearing in writing to the Director.
8. The Director shall notify the permittee in writing of any revocation hearing at least twenty (20) days prior to the date set for such hearing. The hearing shall be conducted in accordance with Title 67, Chapter 52, Idaho Code.
9. If, pursuant to Idaho Code § 67-5247, the Director finds the public health, safety or welfare requires emergency action, the Director shall incorporate findings in support of such action in a written notice of emergency revocation issued to the permittee. Emergency revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing the Director shall provide the permittee a revocation hearing and prior notice thereof. Such hearings shall be conducted in accordance with Title 67, Chapter 52, Idaho Code.
10. The provisions of this permit are severable and if a provision or its application is declared invalid or unenforceable for any reason, that declaration will not affect the validity or enforceability of the remaining provisions.
11. The permittee shall notify the DEQ at least six (6) months prior to permanently removing any permitted land application site from service. Prior to commencing site closure activities, the permittee shall: a) participate in a pre-site closure meeting with the DEQ; b) develop a site closure plan that identifies specific closure or cleanup tasks with scheduled task completion dates in accordance with agreements made at the pre-site closure meeting; and c) submit the completed site closure plan to the DEQ for review and approval within forty-five (45) days of the pre-site closure meeting. The permittee must complete the DEQ approved site closure plans.